

### Abstract

#### Signal Processing System

5 A signal processing system (10) has a plurality of optical fibres (40, 42, 43) with their one ends (40) mounted in an array board (41) to receive electromagnetic radiation. A coupler (54) interconnects the other ends of the optical fibres (42, 43) in parallel such that electromagnetic radiation is first coupled together and then directed into two or more independent processing channels (45, 47).